

Voltaic Pile Activity
AP Physics

18 Points Total

Instructions:

1. Materials: Pennies, paper towels, salt solution water cups, multimeters.
2. Tear paper towels into squares or circles that are slightly larger than the pennies, and submerge them in the salt solution.
3. Place a penny on the table, then a paper towel on the penny, then another penny, then another paper towel, etc.
4. Measure the electric potential between the top penny and the bottom penny and record.
5. Begin with 2 pennies, and add one penny for each measurement until you reach 15 pennies.

Rubric:

1. Write a procedure for measuring the electric potential. Be precise in your wording and account for all things you did (4 points).
2. Draw a picture of the setup (2 points).
3. Create a neat, organized data table (4 points).
4. Sources of error and improvements in the experiment (4 points; 2 each).
5. Write a conclusion based on your data, and include relevant numbers (4 points).